

**What is Claimed:**

1. A light system on a helmet having an exterior surface, the light system comprising:
  - at least one light source; and
  - at least one light conductive path attached to the exterior surface of the helmet, the path having a first end optically coupled to the light source and a second end for emitting light.
2. The light system of claim 1 wherein the light conductive path is permanently adhered to the exterior surface.
3. The light system of claim 1 wherein at least a portion of the light conductive path is in-molded with the exterior surface.
4. The light system of claim 1 wherein the light conductive path comprises a fiber optic conductor and wherein the second end of the fiber optic conductor is polished to create a lens for emitting the light.
5. The light system of claim 1 wherein the light source comprises a light emitting diode.
6. The light system of claim 5 wherein the light source comprises a plurality of light emitting diodes of different colors.

7. The light system of claim 1, further comprising a protective overcoat over the light conductive path.

8. The light system of claim 1, further comprising logic circuitry connected to the light source for controlling light emitted by the light source.

9. The light system of claim 8, further comprising a receiver for receiving a signal, and wherein the logic circuitry controls the light source as a result of receiving the signal.

10. The light system of claim 9 wherein the receiver is capable of receiving at least one of the following types of signals: an ultrasonic signal; an infrared signal; or a radio frequency signal.

11. The light system of claim 8 wherein the logic circuitry is programmed to permit selection between multiple programming sequences.

12. The light system of claim 8, further including a battery connected to the logic circuitry.

13. The light system of claim 12 wherein the exterior surface includes a removable compartment for containing the light source, the logic circuitry, and the battery.

14. The light system of claim 12 wherein the battery comprises a rechargeable battery.

15. A circuit on a curved surface, the circuit comprising:

at least one light source; and

at least one light conductive path attached to the curved surface, the conductive path having a first end optically coupled to the light source and a second end for emitting light.

16. The circuit of claim 15 wherein the light conductive path is permanently adhered to the exterior surface.

17. The circuit of claim 15 wherein at least a portion of the light conductive path is at least partially in-molded with the exterior surface.

18. The circuit of claim 15 wherein the light conductive path comprises a fiber optic conductor and wherein the second end of the fiber optic conductor is polished to create a lens for emitting the light.

19. The circuit of claim 15 wherein the light source comprises a light emitting diode.

20. The circuit of claim 19 wherein the light source comprises a plurality of light emitting diodes of different colors.

21. The circuit of claim 15, further comprising a protective overcoat over the light conductive path.

22. The circuit of claim 15, further comprising logic circuitry connected to the light source for controlling light emitted by the light source.

23. The circuit of claim 22, further comprising a receiver for receiving a signal, and wherein the logic circuitry controls the light source as a result of receiving the signal.

24. The circuit of claim 23 wherein the receiver is capable of receiving at least one of the following types of signals: an ultrasonic signal; an infrared signal; or a radio frequency signal.

25. The circuit of claim 22 wherein the logic circuitry is programmed to permit selection between multiple programming sequences.

26. The circuit of claim 22, further including a battery connected to the logic circuitry.

27. The circuit of claim 26 wherein the exterior surface includes a removable compartment for containing the light source, the logic circuitry, and the battery.

28. The circuit of claim 26 wherein the battery comprises a rechargeable battery.

29. A light system on a helmet, comprising:  
a shell;  
at least one light source;

a plurality of fiber optic conductors attached to the shell, the fiber optic conductors each having a first end optically coupled to the light source and having a second end for emitting light;

a power source; and

logic circuitry coupled to the light source and the power source for controlling operation of the light source, wherein the light source, the power source, and the logic are located on the shell.

30. The light system of claim 29 wherein at least a portion of the fiber optic conductors are at least partially in-molded with the shell.